1046-C1-164   **Murray H. Siegel*** (`murray.siegel@centralaz.edu`), 20159 N Geyser Drive, Maricopa, AZ 85238. *A Data-Based Project to Enhance the Teaching of Functions in College Algebra.*

For many college algebra students algebraic functions are irrelevant. They have seen these functions in previous classes but must struggle to learn the material again. Using linear, piece-wise defined, quadratic, cubic, exponential and logarithmic functions to model real data allows the student to see the importance of these functions. A project where each student finds data drawn from an area of interest (such as politics, sports, food or entertainment) is the culminating activity for this course. Students must manipulate the coefficients for the various functions to find the best model for each type and then choose the very best model. In the project report the student must explain why the "best" model makes sense. The student relates his/her interest in the data to the nature of the specific function. Two examples will be provided from reports from previous students. One demonstrates the quadratic relationship between hits and runs scored for Major League Baseball players. The second validates that an exponential function best models the relationship between the height and the average digs per match for NCAA Division 1 volleyball players. (Received August 08, 2008)